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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,857	01/18/2002	Shigeo Kurose	OKA-0013/DIV	9953

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EXAMINER
RESAN, STEVAN A

ART UNIT	PAPER NUMBER
1773	A

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-4

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/050,857	KUROSE ET AL.
	Examiner	Art Unit
	Stevan A. Resan	1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-5, 8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5, 8 and 9 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. 09/658,118.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____                                    |

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## **DETAILED ACTION**

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-5, 8, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 8 contain the word “type” which renders these claims indefinite Ex parte Copenhaver.

Claim 5 contains the word “kinds” which renders the claim indefinite.

Claims 2-5, and 9 are rejected for depending from a claim rejected under 35 USC 112.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35

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U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4, 8, 9, are rejected under 35 U.S.C. 102(e) as being Saitoh et al 6,127,039 by .

Note that process limitations in these article claim have been given no weight since they do not appear to produce a patentable article.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh et al as applied to claim 1 in view of Echigo et al 5,342,668 or Sato et al 4,571,362.

Saitoh et al teach that an abrasive may be incorporated into the magnetic layer which is essentially the same described for the non-magnetic layer col 14 lines 45-48. These are described at col 9, line 12-35. Saito et al do not teach the use of two or more abrasives having different particle sizes. However it was old in the art at the time of the invention to use two abrasives having different particle sizes (see Ejiri et al cited below at col 4 lines 8-11); Furthermore specific combinations of two particles have shown advantages in a magnetic layer. Saito teaches that a combination of  $Al_2O_3$  and  $Fe_2O_3$  compared with  $Al_2O_3$  alone reduced head wear (col 3 lines 21-25). Therefore it would have been obvious to one of ordinary skill in the art to replace the  $Al_2O_3$  in the magnetic layer of the Examples of Saitoh et al with a combination of  $Fe_2O_3$  and  $Al_2O_3$ .

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Echigo et al teach that surface roughness depends upon the size and shape of the non magnetic powder of the magnetic layer. Therefore it would have been obvious to one of ordinary skill in the art to use more than one average particle size of the  $\text{Al}_2\text{O}_3$  in order to design an intended surface roughness and film strength as taught by Echigo et al. (See col. 2 lines 37-40).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Naoe et al is cited for teaching a magnetic reading medium having a lower non magnetic layer which may be electric beam cured and an upper magnetic layer 0.30 thick containing abrasive of Mohs hardness of >than 6 with an average particle size smaller than the magnetic layer.

Ejiri et al is cited for teaching thin magnetic layers (0.2 microns thick see e.g. 6) containing alumina 0.05 microns in diameter.

Konno et al is cited for teaching a magnetic recording medium having an radiation cured underlayer for enhanced adhesion to a substrate.

Nishimatsu et al is cited for the use of a radiation cured underlayer containing an antistatic agent.

Shimozawa et al is cited for teaching an underlayer comprising a radiation cured binder and carbon black.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven A. Resan whose telephone number is 308-4287. The examiner can normally be reached on Tuesday-Friday from 7:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 305-5436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-2351.

SResan:evh

6/29/02



STEVAN A. RESAN  
PRIMARY EXAMINER